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**Title** : Sleepless in New Jersey: Overnight behavioral observations of radio-tagged dolphins

**Category** : Behavior

**Student** : Not Applicable

**Preferred Format** : Poster Presentation

**Abstract** : Health assessments were conducted on coastal Atlantic bottlenose dolphins along the shoreline of southern New Jersey in September 2002. Two dolphins were tagged and released with suction cup Trac Pacs and subsequently tracked until the tags jettisoned. The packs contained a radio transmitter and Time-Depth recorder (TDR). Both animals were monitored by boat during a 65 km and 85 km track, respectively. Behaviors were categorized by GPS location, velocity, diving, and general activity. Both animals spent the majority of their time slowly swimming along the beach, at average speeds of 1.5 m/s. The first animal remained with a group and was tracked for 12 hours. He moved along the beach until nightfall, then headed 3.5 km offshore to a reef overnight, returning to the beach at dawn. The second animal was a solitary adult female tracked for 20 hours. Her Trac Pac jettisoned at 24.5 hours and was later recovered. Her fastest speeds of 3.5 m/s were attained when avoiding a fast moving boat, and when passing under a bridge. Deepest dives occurred in the mouths of inlets (up to 16 m); when transiting ship channels; and when passing under a bridge. Time analysis shows that 54% was spent in slow steady transit swimming along the beach, with apparent foraging occurring less than 10% of the time. She also spent 5.1 hours (23% of total time) actively swimming within an estuary overnight, and resumed her northward trek along the beach at daybreak. Surfacings averaged 1.7 per minute during transit swimming, and increased to 2.1 per minute while crossing deeper channels. Average time between surfacing varied from 28 sec in channels to 150 sec when avoiding boats. This study provides new information about the post-release behaviors of these animals, and gives insight into their nocturnal activity patterns and habitat utilization.